Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application:

CLAIMS:

- Claim 1 (Currently amended): A process for the purification of olanzapine characterized in that said process comprises the following steps:
 - a) mixing olanzapine with an organic acid in an organic solvent or a mixture of organic solvents to form an olanzapine acid addition salt,
 - b) precipitating and isolating the olanzopine acid addition salt and,
 - c) transformation of the olanzapine acid addition salt to olanzapine olanzapine.
- Claim 2 (Original): The process according to claim 1 wherein the organic acid in step (a) is selected from the group consisting of sulfonic acids or carboxylic acid.
- Claim 3 (Original): The process according to claim 2 wherein the carboxylic acid is selected from the group consisting of fumaric acid and benzoic acid.
- Claim 4 (Currently amended): The process according to claim 1 wherein the organic solvent in step (a) is selected from the group consisting of tetrahydrofurane tetrahydrofuran, acetone, dimethylformamide and acetonitrile.
- Claim 5 (Currently amended): The process according to claim 1 wherein the mixture of organic solvents in step (a) is a mixture of tetrahydrofurane tetrahydrofuran with at least one polar solvent.
- Claim 6 (Original): The process according to claim 5 wherein said polar solvent is selected from the group consisting of dimethylformamide, dimethylacetamide, N-methylpyrrolidone, 1,3-dimethyl-3,4,5,6-tetrahydro-2(1H)-pyrimidinone, 1,3-imethyl-2-imidazolidinone, tetramethylurea, dimethyl sulfoxide, sulfolane, acetone and acetonitrile.
- Claim 7 (Original): The process according to claim 1 characterized in that step (c) comprises the following substeps:
 - i) dissolving an acid addition salt of olanzapine in water,
 - ii) adjusting pH of the obtained solution to about 8-10,
 - iii) extracting olanzapine from the water phase to the organic solvent phase and
 - iv) isolating the acid addition salt of olanzapine from the organic solvent phase by concentrating the solution and separation of the crystals.

- Claim 22 (Original): A process for the preparation of olanzapine in the form of an acid addition salt characterized in that said process comprises the following steps:
 - a) 4-amino-2-methyl-10H-thieno[2,3-b][1,5]benzodiazepine hydrochloride is reacted with N-methylpiperazine to yield olanzapine and
 - b) the obtained olanzapine is transformed to an acid addition salt thereof.
- Claim 23 (Original): The process according to claim 22 characterized in that step (b) comprises the following substeps:
 - i) the obtained reaction mixture is diluted with water,
 - ii) the diluted reaction mixture is extracted with an organic solvent,
 - iii) the organic phase is evaporated and the residue is diluted with a second solvent to obtain a solution,
 - iv) an organic acid is added to the solution to precipitate olanzapine acid addition salt and
 - v) precipitated olanzapine acid addition salt is isolated by separation of crystals.
- Claim 24 (Original): A process for the preparation of olanzapine in the form of an acid addition salt characterized in that said process comprises the following steps:
 - a) N-desmethylolanzapine is reacted with a methylating agent to yield olanzapine,
 - b) the obtained reaction mixture is diluted with water and acidified with an acid.
 - c) to the reaction mixture, an organic solvent is added and the phases are separated,
 - d) the obtained water phase is neutralized and olanzapine is extracted with an organic solvent to obtain the organic solvent phase and
 - e) an organic acid or substituted organic acid or an organic acid derivative of formula RX; wherein R represents an organic radical such as acetyl, propionyl, chloroacetyl and X is selected from a group of Cl, Br or I; or an organic acid anhydride; is added to the organic phase to form a N substituted N-desmethylolanzopine derivative of formula 2

- f) the obtained organic solvent phase is optionally evaporated and the residue is diluted with a second organic solvent,
- g) an organic acid is added either to the obtained diluted solution or directly to the olanzapine extract from said extraction in step (d) and
- h) precipitated olanzapine acid addition salt is isolated by separation of the crystals.

- Claim 25 (Original): The process according to claim 24 wherein the organic solvent in steps (c) and (d) is a chlorinated solvent.
- Claim 26 (Original): The process according to claim 25 wherein said chlorinated solvent is methylene chloride.
- Claim 27 (Original): The process according to claim 24 wherein the organic solvent in steps (c) and (d) is methylene chloride and said second solvent in step (f) is methanol.

Claims 28-34 (Cancelled)

- Claim 35 (Currently amended): Olanzapine prepared according to any of the previous the processes disclosed in the claims 1-7 and 29-33 claim 1 characterized in that N-desmethylolanzapine content in the final product of olanzapine is less than 0.1 %.
- Claim 36 (Currently amended): Olanzapine prepared according to any of the previous the processes disclosed in the claims 1-7, 16-18 and 29-33 claim 1 that contains less than 0.05 % of piperazine 1,4-bis-4-yl-(2-methyl)-10H-thieno-[2,3-b][1,5]benzodiazepine.

Claims 37-43 (Cancelled)